



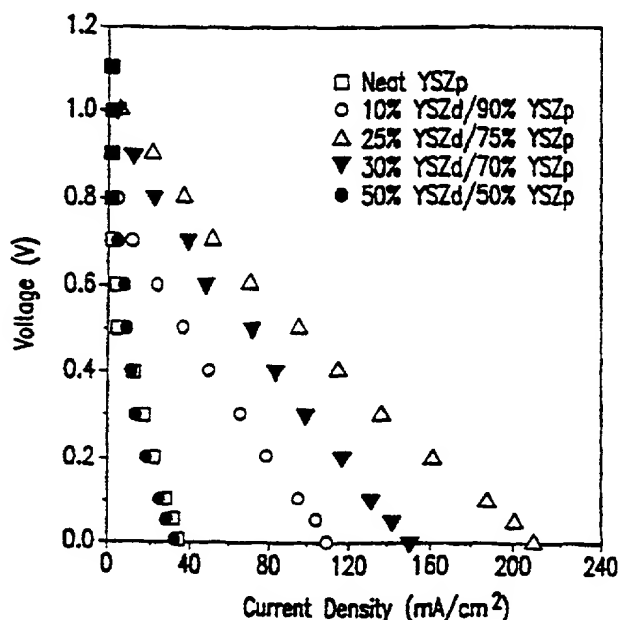
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(54) Title: METHOD FOR SOLID OXIDE FUEL CELL ANODE PREPARATION

## (57) Abstract

A method for preparation of an anode for a solid oxide fuel cell in which a plurality of zircon fibers are mixed with a yttria-stabilized zirconia (YSZ) powder, forming a fiber/powder mixture. The fiber/powder mixture is formed into a porous YSZ layer and calcined. The calcined porous YSZ layer is then impregnated with a metal-containing salt solution. Preferred metals are Cu and Ni. An anode and a method for manufacturing a fuel cell containing such anode is also disclosed. Such anode is particularly performant when the fuel cell is fed with dry hydrocarbons, in absence or low content of steam.

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YSZd = dense YSZ

YSZp = porous YSZ

□, P<sub>max</sub> = 5.1 mW/cm<sup>2</sup>○, P<sub>max</sub> = 19.4 mW/cm<sup>2</sup>△, P<sub>max</sub> = 34.6 mW/cm<sup>2</sup>▽, P<sub>max</sub> = 4.0 mW/cm<sup>2</sup>●, P<sub>max</sub> = 1.5 mW/cm<sup>2</sup>